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## **Slide 2-1:** Module 2 Setting Up Your Workspace to Contain Lead Dust

- This is the module title slide.
- Announce the module and move quickly to the next slide.

EPA
United States Environmental Protection Agency

# Module 2
# Set-Up Your Workspace to Contain Lead Dust

9/30/2000 2-1

## **Slide 2-2:** Video Segment: *Set-Up Your Workspace*

- Play the first segment of the video. When the first segment is complete, turn off the VCR.
- **Optional discussion questions.** Ask participants to name the three most important things they learned about how to set-up a workspace. Ask participants what it would take to begin doing this on their jobs. Try to keep discussion limited to no more than about 5 minutes.
- Begin presenting the material on the next slide.

# Video Segment: Set-Up Your Workspace

- **Think about the following points as you view the video**
  - What are the most important things you see to properly set-up a workspace?
  - What would it take for you to begin doing these practices in your work?

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## **Slide 2-3:** Module 2 Overview

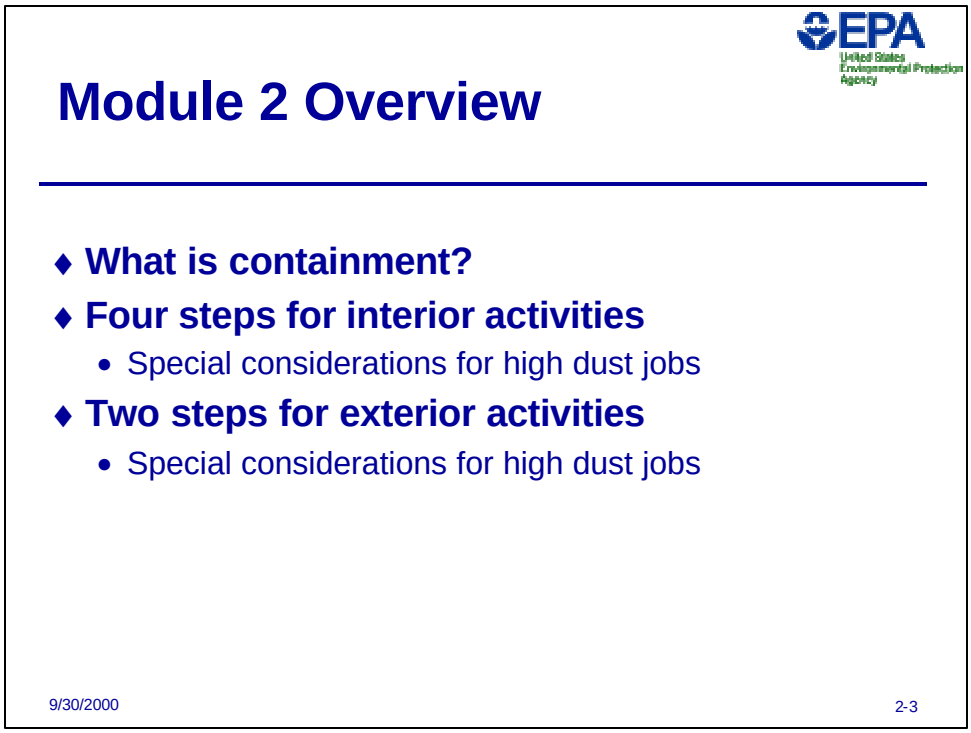
- This module covers the bulleted list of topics on the slide. Review this list with the class participants. Do not spend a lot of time on this slide as the slides in the rest of the module answer the questions

- Module objective. The purpose of this module is to learn how to follow a few simple set-up techniques that will stop the spread of lead-contaminated dust to non-work areas.

- It is critical on this slide that participants understand high dust and low dust jobs. The concept of high dust jobs is discussed throughout the course. The working definition in the student notes is an informal definition that the students may use as a guideline to differentiate between high and low dust jobs.

    - Ask the participants for examples of high and low dust jobs. Ask them about the reasoning behind their examples–why is one particular job high dust and another low dust?

    - Emphasize to the participants that the work practices and equipments used on a job and the size of the job are factors that will affect the amount of dust generated. For example, vigorous hand sanding a large work area could create enough dust that it might extend beyond five feet from the work area.




## Upon completion of this module you will be able to

- Perform set-up techniques to contain lead dust and allow for easier cleanup at the end of the day and at the completion of the job.
- Identify appropriate set-up techniques for high dust jobs that may require additional containment.

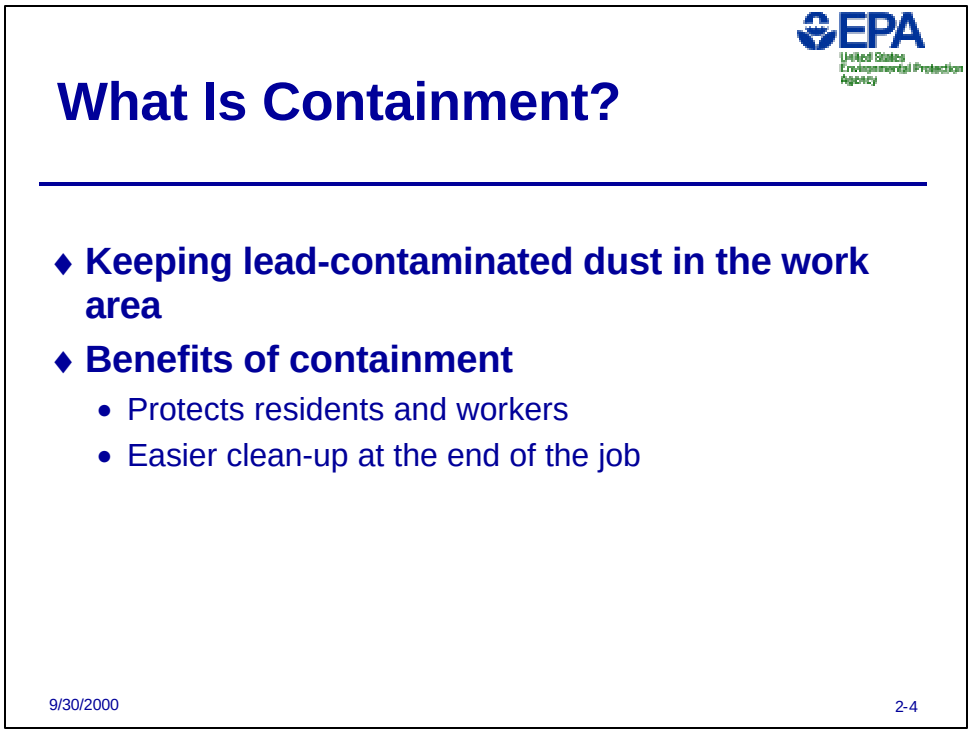
## What is a high dust job?

- A working definition of a **high dust job** is one that creates dust and debris that will spread beyond five feet from the area that you are working on. Conversely, a **low dust job** is one in which dust and debris will not spread beyond five feet from the work area.
- In general, jobs that involve only a small work area create less dust than jobs that involve a larger work area. However, in addition to the size of the job, the work practices (e.g., sanding), and equipment (e.g., power sander) used will affect how much dust is created. So, for example, using a power sander without a HEPA filter vacuum attachment on a two square foot area could be considered a high dust job. Using power tools equipped with HEPA filtered vacuum attachments will create less dust than using power tools without these attachments.
- Examples of high dust jobs include:
  - Hand scraping large areas
  - Using power sanders (e.g., orbital, belt) without HEPA equipped vacuum attachments and shrouds
  - Using electric planer without a HEPA equipped vacuum attachment and shroud
  - Removing paint with a heat gun
  - Using circular or reciprocating saw
  - Removing dry residue and paint after using chemical strippers
  - Demolishing painted surfaces using hand or power tools
  - Removing building components with painted surfaces that are in poor condition

## **Slide 2-4:** What is Containment?

- This slide may best be covered using a question and answer format. The following slides in the module identify equipment needed and how to do containment set-up, so don't try to cover everything in the module on this slide.

- Questions for class discussion:
  - How does containment protect co-workers and residents? [Answer: keeps lead-contaminated dust in a specific area with workers who are trained and working with or wearing proper equipment. It also keeps residents out of the work area until the job and cleanup is complete.]
  - How does containment make clean-up easier at the end of a job? [Answer: by limiting the cleanup area to approximately the work area or two feet beyond the work area.]




## What is containment?

- In general, there are many degrees of containment, ranging from simple plastic sheeting on the floor surrounding a small work area to a fully sealed dust room (discussed later in this module). Some types of containment are more effective than other types. For example, a drop cloth might be considered a form of containment by some, but because it is reusable and can trap and hold dust and paint chips, it can transport lead-contaminated dust from one job site to another. It is not an effective form of containment for working in homes with lead-based paint.
- **For purposes of this training, "containment" is** anything that stops lead-contaminated dust from spreading beyond the work area to non-work areas.

## Benefits of containment

- **Reduces the risk to you and residents**. Following the work area set-up suggestions of this module will protect you, your co-workers, and residents from the negative health effects of lead while remodeling, renovating, or painting. Reduced risk to you and co-workers is also dependent upon wearing proper personal protection equipment.
- **Easier clean-up.** The pre-work set-up process is essential to keeping lead contaminated dust within the work area where it can be easily cleaned. Proper containment of the work area helps to limit the areas you need to clean up after the job is complete. This saves time and money for cleanup.

## **Slide 2-5**: Current Interior Set-Up Practices Spread Lead-Contaminated Dust

- After defining containment in the previous slide, this slide identifies common set-up practices that do not contain lead-contaminated dust.

- Ask the participants: What can you identify in the illustration that indicates a lack of containment of lead dust?
  - Drop cloth. When the drop cloth is lifted and moved (even during cleanup) it will leave dust in the air and on the floor or furniture. Also, if reused at a new worksite, lead-contaminated dust from the previous worksite will move to the new site.
  - Furniture in the room that is not covered. Lead-contaminated dust will settle on the uncovered furniture and be transferred to anyone who comes in contact with it.
  - Open door and windows. Allows lead-contaminated dust from exterior work to enter the room and from interior work to get outside. Breezes entering the room from open windows also spread dust far beyond the interior work area.
  - Broom or shop vacuum. Using these two items often causes settled dust to move into the air again where it can be transported throughout the room being clean and to other rooms in the house.

- Emphasize that these practices are not wrong for <u>all</u> remodeling, renovation, and painting activities, but for jobs that disturb *lead-based* paint, common practices should be modified to ensure that lead dust is contained.

## Current Interior Set-Up Practices Spread Lead-Contaminated Dust

- **Reusable drop cloth**
- **Furniture in the room**
- **Open doors and windows**
- **Broom or shop vacuum**

***Do not use these practices when lead is present!***

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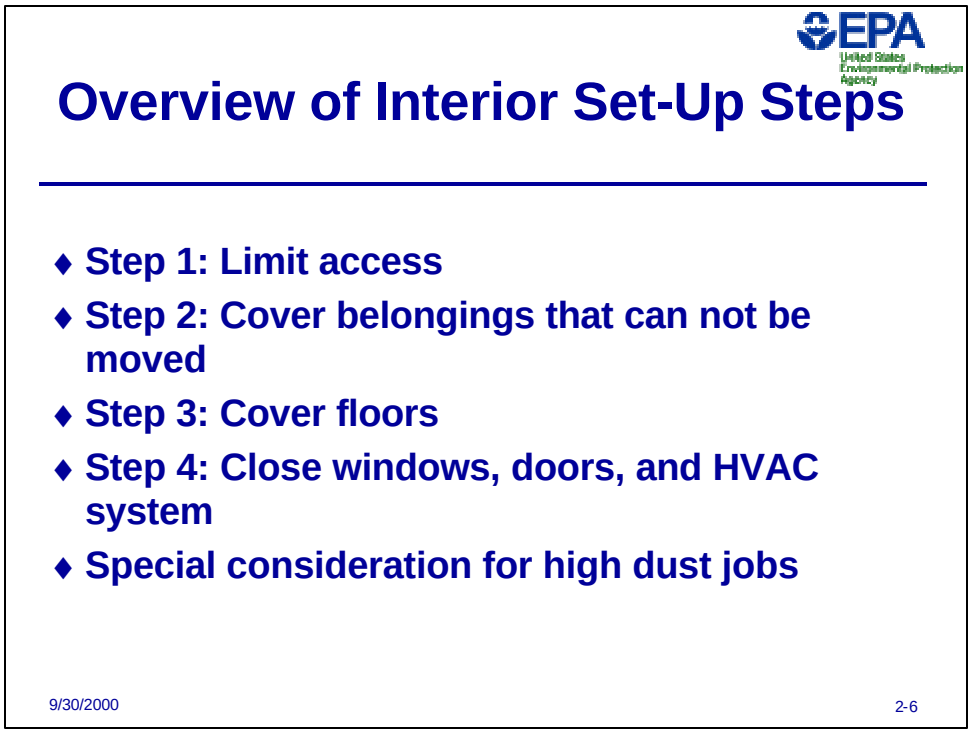
### Current practice for interior set-up typically involves

- **A reusable drop cloth** is an improvement over not using any drop cloth, but it can carry dust from one job site to other job sites, and contaminate vehicles and storage areas. Some of the dust captured by a drop cloth falls to the floor when folding the cloth to carry away. However, some of the dust stays with the drop cloth. When it is used again it may contaminate the new (clean) job site with lead-contaminated dust.
- **Allowing furniture to remain in the work area** while the work is being performed. Lead-contaminated dust may fall and remain on these furnishings after the job is completed. Residents could easily come into contact with the lead-contaminated dust on the furnishings and get poisoned.
- **Allowing residents access to work area** while the work is underway. The residents are then exposed to the lead-contaminated dust and can track the dust to other parts of the building where it could linger. Again, residents could easily be exposed to the lead-contaminated dust on the furnishings and get poisoned.
- **Open windows and doors** allows lead dust to float into other parts of the building or over onto neighboring property.
- **Brooms and shop vacuums are typically used to clean-up.** Both clean-up methods capture some dust, but shop vacuums especially can put more dust into the air than they clean up if the filters are dirty or inadequate. Vigorous sweeping may also put a lot of dust into the air. To be effective, containment must be practiced even when cleaning up after the job.

## **Slide 2-6**: Overview of Interior Set-Up Steps

- Use this slide to highlight the upcoming four steps. Do not go into detail about the steps here: this slide is merely an introduction so that participants will have a structure to organize the information.




### Overview of interior set-up steps

- Details for these steps are on the following several pages. These four steps will help contain lead dust to the work area for interior jobs.
- See page 13 in the *Lead Paint Safety Field Guide* for additional information. Appendix 1 contains a copy of the text from the *Lead Paint Safety Field Guide*.

## **Slide 2-7**: Set-up Toolkit

- Some contractors divide their work into set-up, safe work practices, personal protective equipment, and clean-up. They then create four separate toolkits for each phase of the work. This makes it easy to keep all of the necessary supplies and equipment together in one place as work is begun, performed, and finished.

- This slide highlights important items in the **set-up toolkit**. Consider bringing in a set-up toolkit to show items or pass around in class. Actually having the toolkit in the class for participants to see first hand will bring home the message that by being organized it is easier to do set-up and containment.

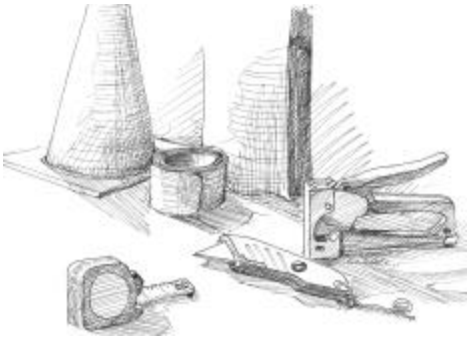
- Show the class samples of the various tools and supplies that are used during set-up.

- Participants may be interested in knowing where they can go locally to obtain some of the supplies or equipment. Therefore, it might also be helpful to bring in a contractor's supply magazine and to have a general knowledge of prices and where the participants can obtain these supplies and equipment.

- Ask participants: Are any items that they would want to add to the toolkit? If so, what are they used for and how would they benefit set-up for containment?

## Set-up Toolkit

- Barriers
- Coverings for furniture, fixtures, plants, or outdoor play areas
- Other set-up containment items



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### Typical items for work area set-up to contain lead-contaminated dust

**Barriers**

☑Rope or other barrier
☑Tape (bright color preferable)
☑Saw horses
☑Orange cones or other similar marker

**Coverings for Furniture, Fixtures, Plants or Out door Play areas**

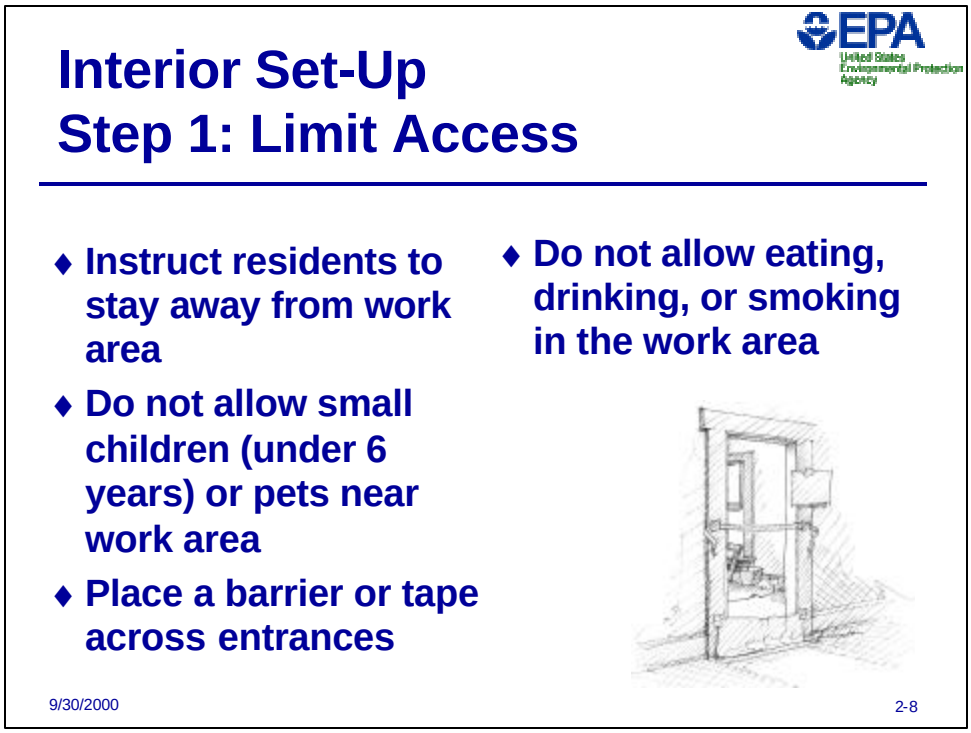
☑Duct tape, painters tape, or masking tape
☑Stapler
☑4-6 mil protective sheeting
☑Utility knife or scissors
☑Disposable mesh materials such as burlap, cheesecloth, or landscaping mesh

**Other Set-Up Containment Items**

☑Tack pad (sticky pad for walking on to remove dust from soles of shoes)
☑Small disposable towels or wipes
☑Misting bottle

## **Slide 2-8**: Interior Set-Up Step 1: Limit Access

- Ask participants: Have you ever limited access to your work area? If so, how? How successful was this? Would you have done this differently?
- Ask participants: Can you think of any other ways to limit access to the work area?
- Be sure to highlight all of the points on the slide if the class discussion has not addressed all of them.




## Restrict access to the work area and ask residents to stay away while work is underway

- Restricting access to the work area will avoid unnecessary exposure of residents, especially children, to lead dust and minimize its spread to non work-areas.
- Tell the residents to stay away from the area as much as possible. Residents and pets coming and going can easily track lead-contaminated dust throughout the home and into areas that are not being worked on and therefore to areas that are unlikely to be cleaned up promptly.
- This is especially true for small children under six years old. Be sure to explain to residents that this is for their own protection and that small children are most at risk of health problems from exposure to lead.
- You may need to provide an indication of how long you will be working in a particular area so that residents can plan ahead to obtain items that they may need before you begin working.

## Place a barrier across entrances

- A physical barrier, such as a cone or masking tape, should be placed across doorways to remind residents to stay away, especially in buildings where more than one family lives. The barrier serves as a reminder to residents that they should not enter the work area, and also signals that the area has not yet been cleaned up.

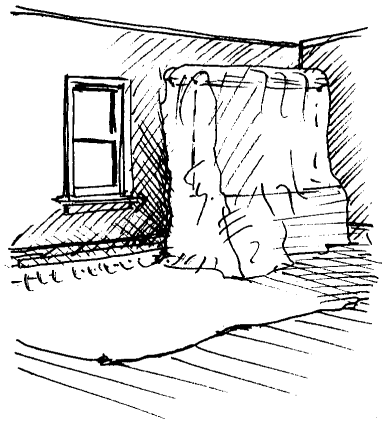
## Do not allow eating, drinking or smoking in the work area

- This is primarily a protection for workers, but is also important if residents are living in or near the work area. Post signs that prohibit eating, drinking, or smoking in the work area. Dust in the air can land on food or be breathed when smoking. If food is set on an unwashed surface, it can easily pick up lead-contaminated dust, which is swallowed when eating the food.

## **Slide 2-9**: Interior Set-Up Step 2: Cover Belongings

- Highlight the importance of covering fixtures and furnishings to prevent dust from settling on these hard-to-clean objects.
- Emphasize that this activity is similar to the current practice to cover the furnishings with dust cloths but instead they will use plastic protective sheeting. Thicknesses of 4-6 mils is appropriate.
- Tell the participants that the dust that lands on these fixtures and furnishings can remain long after the job is complete. Also, cleaning these fixtures and furnishing could pose a hazard to the resident after the job is complete.
- Describe the illustration. Point out how *all* fixtures and pieces furniture are covered.
- Distribute pieces of plastic sheeting to the class. Allow all the students to feel it.
- It may be helpful to know names of local hardware stores and suppliers that sell protective sheeting and the typical price per foot of common types or sizes.

# Interior Set-Up
# Step 2: Cover Belongings



- **Cover furniture and objects in protective sheeting**
  - Furniture
  - Carpet
  - Lamps, pictures, and other fixtures

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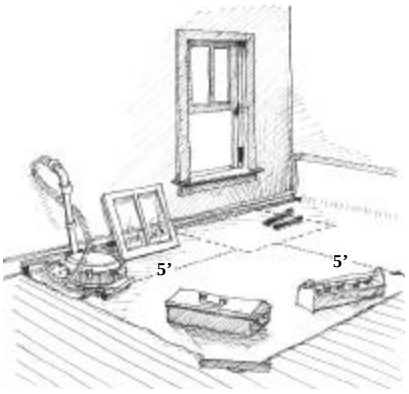
## Cover furniture and other objects in the room with protective sheeting

- Cover all objects that were not removed from the room in protective sheeting. Completely cover all non-movable furniture, carpets, and other personal items with protective sheeting. Secure the protective sheeting to the floor with tape so that no dust can get onto the covered items.
- Protective sheeting such as thick (4-6 mils) polyethylene plastic sheeting is commonly used in many remodeling jobs. Protective sheeting can be bought at many hardware stores.
- If it is a high-dust job, remove the furniture from the work area.

## **Slide 2-10**: Interior Set-Up Step 3:Cover Floors

- Highlight the importance of covering the floor for easier clean-up.
- Emphasize that this activity is similar to the current practice of covering the floor with a drop cloth but instead they will use plastic protective sheeting.
- Highlight the importance of using a tack pad, removing shoe coverings (sometimes called "booties"), wiping shoes, or laying plastic on common traffic areas to prevent lead contaminated dust from being carried to other areas of the building. It is quite common to find high lead-contaminated dust levels along the path from the work area to the bathroom.
- A tack pad acts like flypaper. It is a sticky paper or cloth that removes dust or debris from a workers' shoes when they walk on it. Tack pads are available from specialty construction catalogs.
- It may be helpful to know names of local hardware stores and suppliers that sell tack pads, shoe wipes, or shoe coverings and the typical cost of each item. If possible bring in samples of these items to show to the class.
- Advise students of the importance of cleaning shoes each time they step off the sheeting. Tack pads may be used if available.
- Ensure that students understand the vacuum in the picture should be a HEPA filtered vacuum.

# Interior Set-Up
# Step 3: Cover Floors




- **Cover floors with protective sheeting**
  - At least five feet on all sides of work area
  - 2nd smaller layer if using chemical strippers
  - Place a tack pad at edge of protective sheeting, lay protective sheeting on frequently used walking paths to outdoors and bathrooms

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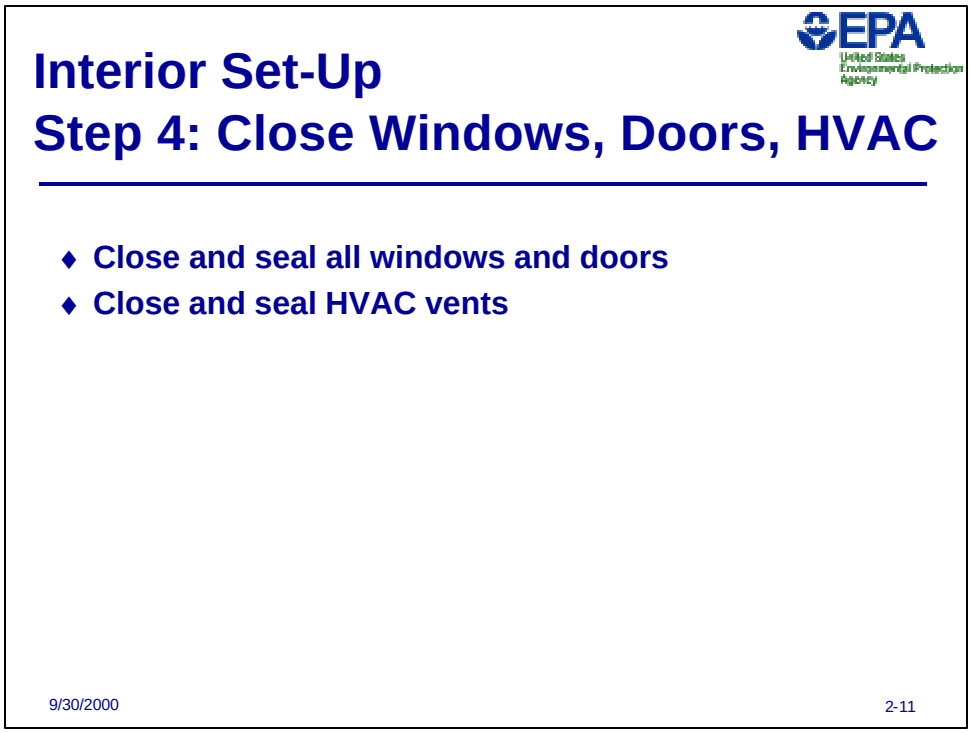
## Cover Floors

- Use protective sheeting to cover the floor. The protective sheeting should extend at least five feet to the left, right and front--and in some cases to the back--of the work area. It should be tightly secured to baseboard or flooring using duct tape, painters tape, or masking tape. The corner edge of the protective sheeting should be reinforced using duct tape or a staple.
- A second smaller layer of protective sheeting should be used with chemical strippers. This second layer should be taped to the top of the first layer. Place the second layer immediately below the work area. This layer will capture any waste and aid in cleaning up.
- Tools that are used frequently should be left within the work area throughout the job to avoid tracking dust to non-covered areas.
- Consider covering shoes with removable shoe covers, wiping off the tops and soles of shoes with a damp paper towel each time you step off the sheeting, or using a "tack pad" that removes dust from the soles of shoes. Immediately place used paper towels in a covered garbage bin. A tack pad can be found at most hardware stores or bought through a supply catalog; it is a sticky pad that you walk on to remove dust from the soles of your shoes. The tack pad can be taped to an outer corner of the sheeting.

## **Slide 2-11:** Interior Set-Up Step 4: Close Windows, Doors, HVAC

- Closing windows, doors, and HVAC vents prevents dust from leaving the work area.

- Close and seal windows, doors, and vents in the containment zone (e.g., within five feet of the work area). If doors and windows are left open, air flows freely through the work area and into non-work areas. Because lead dust is so small, it can easily spread to other areas of the house. Less air flowing through the work area means that there is less chance that lead-contaminated dust will be blown out of the work area.




## Close and cover windows and doors

- Close and seal windows (if no work is being done on the window) and doors, including closet and cabinet doors in the work area.
- Seal windows with protective sheeting to prevent dust from getting into the trough or on sill.
  - Cut plastic sheeting layer slightly larger than the window that you are covering.
  - Attach the plastic sheeting with tape over the window to completely seal it.
  - Make sure that the tape or the sheeting does not cover part of the area that you are working on.

## Close and seal HVAC vents

- Heating ventilating and air conditioning (HVAC) systems distribute air throughout the building and thus can allow dust to move to other rooms. Close and cover the HVAC vents in the work area to prevent air from blowing the dust out of the contained work area and to prevent dust from getting into the HVAC system.

## **Slide 2-12**: Special Considerations For Interior High Dust Jobs

- Ask participants for some examples of high dust jobs [these were listed earlier on page 2-2 such as sawing, use of power tools to prep painted surfaces, planing, and demolition of walls, door and window frames]

- Highlight the importance of moving fixtures and furnishings out of the high dust work area to prevent dust from settling on these hard-to-clean objects.

    - Tell the participants that the dust that can land on these fixtures and furnishings can remain long after the job is complete. Also cleaning these fixtures and furnishing could pose a hazard to the resident after the job is complete.

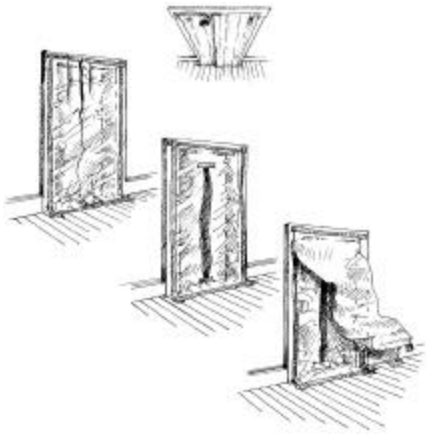
    - Removing residents' personal belongings will also reduce the chance that residents need to enter the work area.

- Tell the class that for high dust jobs they should seal the windows, doors, and HVAC vents with protective sheeting and tape.

    - If feasible, consider setting up a demonstration of the 2-layer "air lock" system covering the entrance to the room.

    - Remind the class about the importance of closing the HVAC vents and sealing them with protective sheeting and cardboard for high dust jobs. The cardboard protects the protective sheeting from the force of the air coming through the vents and helps maintain the seal.

# Special Considerations for Interior High Dust Jobs



- Remove furniture, fixtures and belongings from work area
- Cover door openings with a 2 layers of protective sheeting to form an "airlock"
- Close and cover HVAC vents

9/30/2000 2-12

## Remove rugs, draperies, and furniture from the work area when completing a high dust job

- Before starting work, request that the homeowner remove furniture and fixtures from the room. This will prevent lead-contaminated dust from getting into these items.

## Cover door openings with a 2 layers of protective sheeting

- Covering the door with this two-layer system will contain the dust within the work area. Follow the steps below:
  1) Cut first plastic sheeting layer slightly wider and longer (three inches) than door frame.
  2) Make small "s" fold at the top of sheeting and tape to top of door frame. Make a similar "s" fold at the bottom of the sheeting and tape to flooring. This will ensure that the plastic is not taut. Staple top corners for reinforcement.
  3) For exiting and entering the room, cut a long vertical slit in middle of protective sheeting; leave six inches at top and bottom uncut. Reinforce the top and bottom of the slit with tape to prevent the plastic from tearing.
  4) Tape a second layer of protective sheeting to top of door frame. This layer is cut slightly shorter than door frame so that it will hang down flat against the first sheet of plastic.
  5) Tape and staple top corners of second layer to door frame and first layer. Leave hanging over first layer.
- See Page 46 in the *Lead Paint Safety Field Guide* for more information on how to put the two layer system in place.

## Close and seal HVAC vents in the room

- Turn off the HVAC system for work area. The vents should then be closed and covered with cardboard and protective plastic sheeting. After the work is complete the vent covers should be removed and washed. All filters for the HVAC system should be changed after any work that disturbs lead-based paint.

## **Slide 2-13:** Special Considerations For Interior High Dust Jobs

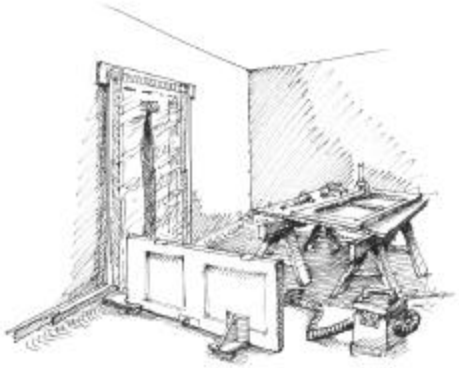
- Refer to the video and how they created the high dust room.

- Ask participants what kind of work they would do in a high dust room. [Answer: Working on components that can be removed from other rooms–such as doors, windows, or cabinets–and that require extensive surface preparation. Any work that requires significant hand or power scraping and sanding, such as wall or floor surface preparation or demolition.]

- Ask the participants for examples of areas of the house that would be an appropriate choice to set-up a dust room. [Answer: A room that residents do not need to use (e.g., not the bathroom or kitchen); a room in which a lot of work would be done regardless of whether there were other components that could be moved into the room; a room that has adequate space in which to move around; a room that can be easily sealed off from the rest of the house; a room that is close to the work area.]

- When referring to the slide, point out that the recommended four interior set-up steps for high dust areas are:
  - Step 1: Limit access
  - Step 2: Remove furnishings (for low dust jobs, just need to cover furnishings)
  - Step 3: Cover the floor
  - Step 4: Seal windows, doors, and HVAC vents in the room

# Special Considerations For Interior High Dust Jobs



- **For work on removable objects that create lots of dust**
- **Select a room that can be easily closed off**
  - Follow Steps 1 through 4 for interior set-up
  - Follow the procedures for high dust jobs

9/30/2000 2-13

## Consider setting up a work room ("dust room") for high dust-generating work on components that can be moved out of their original room and into the dust room

- A dust room prevents the spread of lead-contaminated paint and dust to non-work areas and also makes clean-up easier.
- Use this technique for high dust activities, for example, planing and scraping doors or window sashes where you are maintaining the original windows.
- Set up a dust room if work is being done on components in a room that residents must have access to, such as the kitchen. Rather than keeping the resident out of the kitchen, remove the components to the separate dust room and complete surface preparation there. After preparation is complete, the components can be returned to the kitchen.

## Select a room that can be easily closed off from the rest of the home to use as a dust room

- A dust room can be any room that can be closed off. Residents should not have to enter this space for the duration of the job. For example, a spare bedroom or other unused room that residents do not need to access during the time that the work is being performed.
- The dust room should be close to the work area, if possible.
- Follow the four set-up steps for all work with minor modifications or additions: 1) limit access, 2) remove furnishings, 3) cover the floor, 4) seal windows, doors, and HVAC vents.
- Workers should wear protective clothing, NIOSH approved respirators (e.g., N100), and safety goggles.
- Plan your work so that necessary supplies and equipment are in the room to minimize the number of trips outside the room while work is being performed.
- See Page 14 in the *Lead Paint Safety Field Guide* for more information.

## **Slide 2-14**: Current Exterior Set-Up Practices Spread Lead-Contaminated Dust

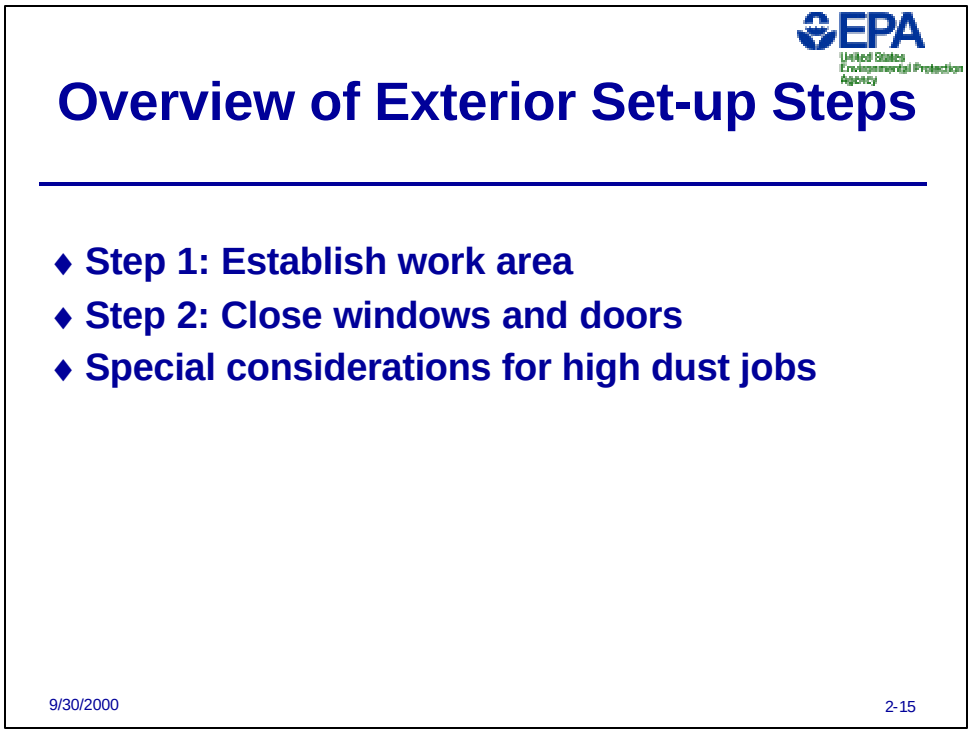
- Ask participants to describe the illustration. Highlight the drop cloth, open door and windows, paint chips, and the children playing near the work area.
- Emphasize that these practices are not wrong for all remodeling, renovation, and repainting activity, but for jobs that disturb *lead* paint, these practices should be modified slightly.
- Review how current practices are not appropriate for jobs that disturb lead paint by walking participants through the key points in the student notes below the slide.


## Current practices for exterior set-up

- **Leaving the ground uncovered** allows lead contaminated dust to get into the dirt, washed into storm drains, and into nearby play areas.
- **Covering with reusable drop cloth.** Similar to the problems associated with using a reusable drop cloth for interior jobs, a reusable drop cloth for exterior jobs can carry dust from one job site to other job sites. Some of the dust captured by a drop cloth falls to the floor when folding it to carry away. However, some of the dust stays with the drop cloth to the next work site, thus potentially spreading lead-contaminated dust to a new work site.
- **Small paint chips** and piles of dirt are often overlooked. This poses a considerable hazard to small children.
- **Residents and passers-by usually have unlimited access to area.** Similar to interior work, residents and passers-by may come into contact with lead-contaminated dust and breathe or swallow it.
- **Windows and doors are left open** and may allow lead contaminated dust to enter the house.

## **Slide 2-15**: Overview of Exterior Set-up Steps

- Use this slide to highlight the upcoming two steps. Do not go into detail about the steps here.




## Two steps for exterior set-up to contain lead dust

- Details for these steps are on the following two pages. These two steps will help contain lead dust to the work area for exterior jobs. These steps may be modified for high dust jobs.
- See page 22 in the *Lead Paint Safety Field Guide* for more information.

## **Slide 2-16**: Exterior Set-Up Step1: Establish Work Area

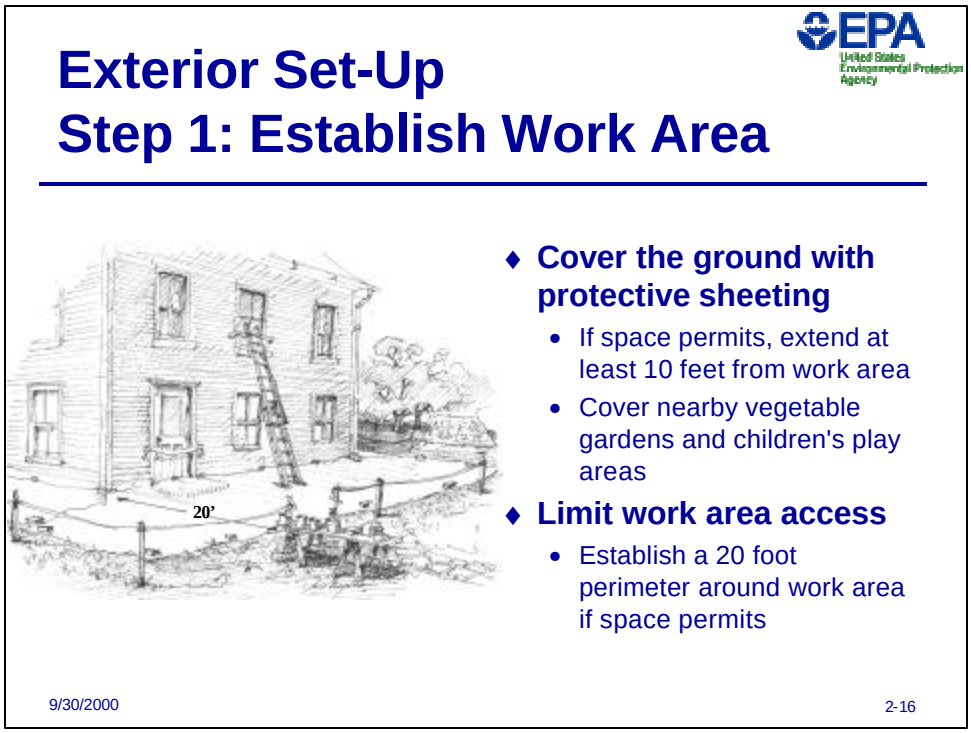
- Review the importance of protecting the ground and gardens from lead-contaminated dust. This lead can remain in the dirt where children play and pose a significant risk. Covering the plants with a mesh material like landscape fabric, burlap, or cheesecloth will help reduce the amount of lead-contaminated dust that falls on the play areas and plants.

- The extra length of the protective sheeting is necessary because the wind can blow the dust further away.

- The sheeting can be taped to the house or a 2x4 can be wrapped in protective sheeting and placed next to the house if tape will not stick. At the loose edges the sheeting can be weighted down with stones, rocks, or any heavy object to prevent the sheeting from flapping or lifting off the ground.

- Saw horses, tape or orange cones remind residents and alert passers-by to stay away from the work area.

- All toys and belongs should be removed from exterior work areas as part of set-up.




## Cover the ground with protective sheeting

- If space permits, lay protective sheeting on the ground below the work area to at least 10 feet from the house. This creates a visible work area and helps remind residents and passers-by that they should not enter the work area unless they have a compelling need. Note: Plastic sheeting can kill plants.
- **Cover grass, shrubs, and gardens with a disposable mesh material** such as landscape fabric or burlap. Landscape fabric is an inexpensive plastic mesh that is often used by landscapers. It can be found in many plant nurseries or hardware stores. This covering will protect the soil and plants from lead contamination. Remember children often play in the dirt and may put their hands in their mouth while playing. Any dirt on their hands will go into their mouths and may be swallowed.
- **Remove toys and other items from work area** and cover all play areas including sandboxes.
- **Staple or tape the protective sheeting to the wall** of the building, or use a 2x4 to hold the material next to the wall. Use heavy objects (e.g., rocks) to weight the other edges of the protective sheeting to the ground so that it won't blow in the wind.
- **When using ladders on plastic sheeting** consider placing a sturdy piece of plywood on the plastic and then setting the ladder on the plywood. This will prevent the ladder from puncturing the plastic and also will provide a stable surface for the ladder.

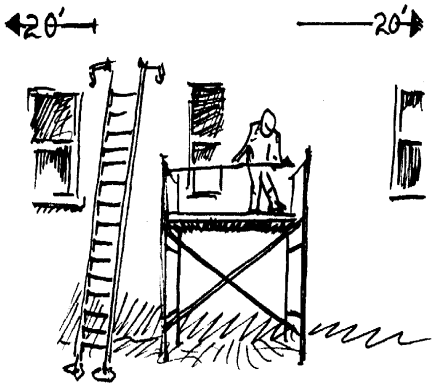
## Limit work area access

- Limit access to work area by placing orange cones, saw horses, or tape around a 20 foot perimeter of the work area. This will help to discourage residents and passersby from entering the work area.

## **Slide 2-17**: Exterior Set-Up Step 2: Close Windows and Doors

- Describe the illustration. State the importance of closing windows and doors to prevent dust from blowing into the building.

# Exterior Set-Up
# Step 2: Close Windows &Doors




- **Close nearby doors and windows within 20 feet of the work area**

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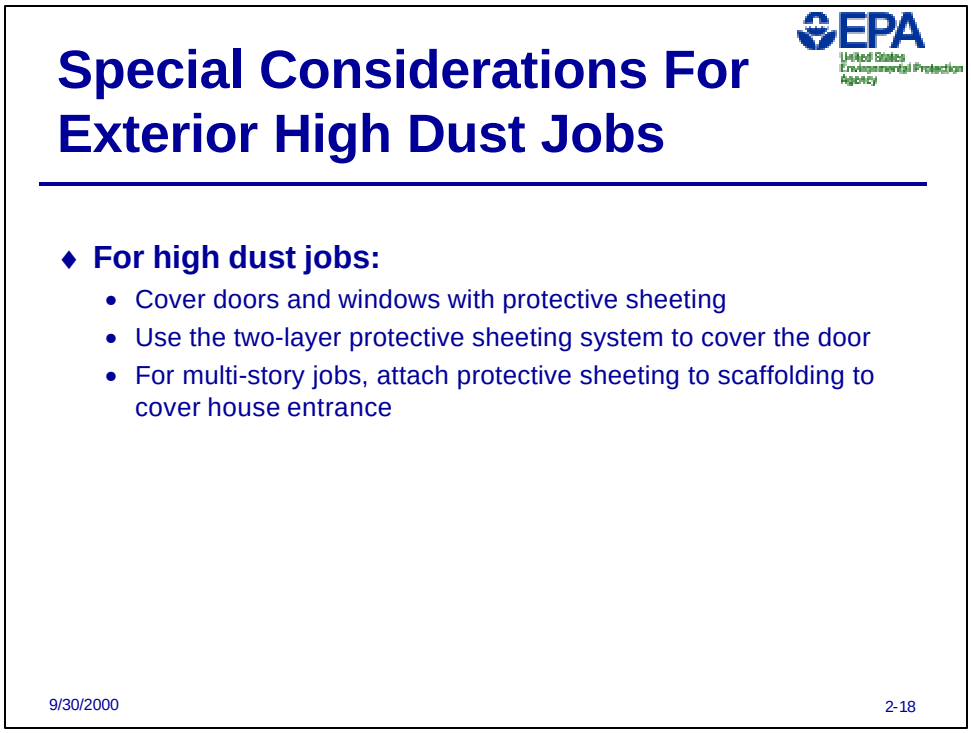
## Close and cover windows and doors

- All windows and doors within 20 feet work area should be closed to prevent dust from entering the home. Consider requesting that the neighbors also close their windows and doors.

## **Slide 2-18**: Special Considerations for Exterior High Dust Jobs

- State the importance of closing and sealing windows and doors with protective sheeting to prevent dust from blowing into the building.

- Doors in the work area that must be used should be sealed with the two-layer protective sheeting system describe previously. For jobs that require scaffolding, the door can be protected on the top and both sides with protective sheeting attached to the scaffolding.




## Cover windows and doors with protective sheeting

- For high dust jobs, close, lock, and seal windows and doors with protective sheeting. Follow the procedures for sealing doors and windows that were described earlier for interior high dust jobs.
- Entrances that must be used while work is underway should be protected with a covering when performing high dust jobs. Either place the 2 layer protective sheeting flap system over the entrance or cover the entrance with protective sheeting that is attached to scaffolding.
- If working with water, consider using landscaping mesh on the ground as described on the previous page.

## Exercise

- The following pages include instructor notes for managing the exercise, an instructor answer key, and a student version of the exercise.

# MODULE 2 EXERCISE
# Instructor Notes

**Objective:** Review set-up methods to contain lead dust and allow for easier clean-up.

**Length:** Total Time 30 minutes; 20 minutes to answer; 10 minutes to report and debrief.

**Directions:**

- Introduce the exercise and the objective. Describe what each group should do.
- Divide the class into groups of between 3 and 5 participants.
- Tell the class that they will have 20 minutes to look at the illustrations and determine the three set-up techniques that do not contain lead dust and identify three techniques that they could use to contain lead dust.

**Debriefing Procedure:**

Take 10 minutes for the debriefing.

- The point of this debriefing is to help participants gain a clear understanding of the concept of containment–what it is and what it is not–and how to set-up the work space to preserve containment.

- Have one group present their answers for the first illustration. If necessary to save time, ask the group to present only their answers for how to reduce the spread of dust and debris.

- Then ask other groups if they had different answers for the first illustration. If so, select one other group to present and explain their answers. If not, ask other groups why they selected the specific methods in their answer.

- Repeat this process for each illustration. Be sure to select different groups to present on each illustration to ensure that each group has a chance to present.

# MODULE 2 EXERCISE
# Instructor Notes

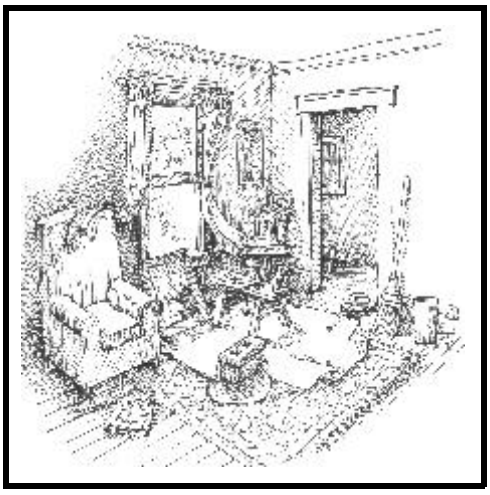
**Objective:** Review set-up methods to contain lead dust and allow for easier clean-up.

**Length:** Total Time 30 minutes; 20 minutes to answer; 10 minutes to report and debrief.

**Directions:** In groups of three or four take 20 minutes to review the three illustrations below and:

- Identify three set-up methods that encourage the *spread* of lead dust beyond the work area;
- Identify three techniques that could be used to *reduce* the spread of lead contaminated dust to non-work areas;
- Assign one person to report your group's answers to the rest of the class.
- Full size illustrations are attached.

## Illustration 1: Replace Window



**Increase the Spread of Dust and Debris:** 1) Drop cloths carry lead-contaminated dust to other jobs. 2) Lead-contaminated dust will fall onto the drapes creating a hazard for the residents. 3) Open windows and doors allow dust to be blown into and outside of the house. 4) There is no barrier to indicate that residents should not enter the area.

**Reduce the Spread of Dust and Debris:** 1) The small child should not be allowed near the work area. 2) Use plastic protective sheeting to cover furniture and the floor. 3) The drapes should be removed from the work area. 4) Barriers should be installed. 5) Adult residents should be told to stay away from the work area and keep children away

## Illustration 2: Remove Exterior Paint

**Increase Spread of Dust and Debris:** 1) Paint dust and chips are blowing onto the nearby play area. 2) Children are playing nearby. 3) The exposed pile of paint chips poses a significant hazard to the residents.
**Reduce Spread of Dust and Debris:** 1) Lay protective sheeting on ground (if using water, lay landscaping mesh to capture paint chips and let water into ground). 2) Children should be told to stay away from the work area and a barrier erected. 3) The pile of paint chips should be vacuumed up frequently and not left on the ground where wind may scatter them onto the play area.

## Illustration 3: Rework and Paint Interior Components

**Increase the Spread of Dust and Debris:** 1) The significant amount of dust being generated and the ability to remove the door suggest that a dust room should be set-up. 2) There is no protective sheeting on the floor. 3) The windows and doors are open. 4) There is also no evidence of any barriers or signs limiting access to the work area.
**Reduce the Spread of Dust and Debris:** 1) Create a dust room. 2) The floors and windows should be lined with protective sheeting. 3) The entrance to the dust room" should have the 2- layer flap system.

# MODULE 2 EXERCISE

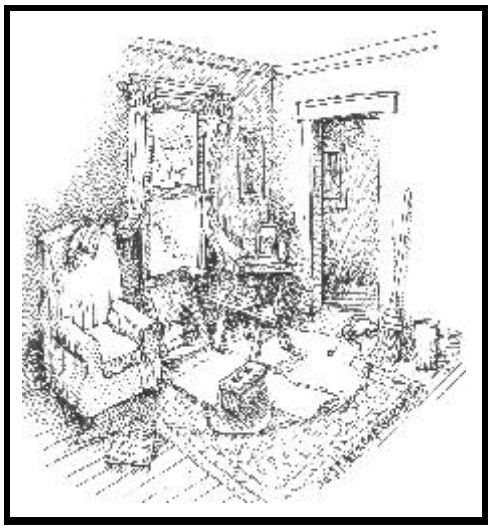
**Objective:** Review set-up methods to contain lead dust and allow for easier clean-up.

**Length:** 30 minutes, including discussion of answers

**Directions:** In groups of three or four take 20 minutes to review the three illustrations below and:

- Identify three set-up methods that encourage the *spread* of lead-contaminated dust and debris beyond the work area;
- Identify three techniques that could be used to *reduce* the spread of lead-contaminated dust and debris to non-work areas;
- Assign one person to report your group's answers to the rest of the class.
- Full size illustrations are attached.

## Illustration 1: Replace Window



**Increase the Spread of Dust and Debris**

**Reduce the Spread of Dust and Debris**

## Illustration 2: Remove Exterior Paint

**Increase the Spread of Dust and Debris**

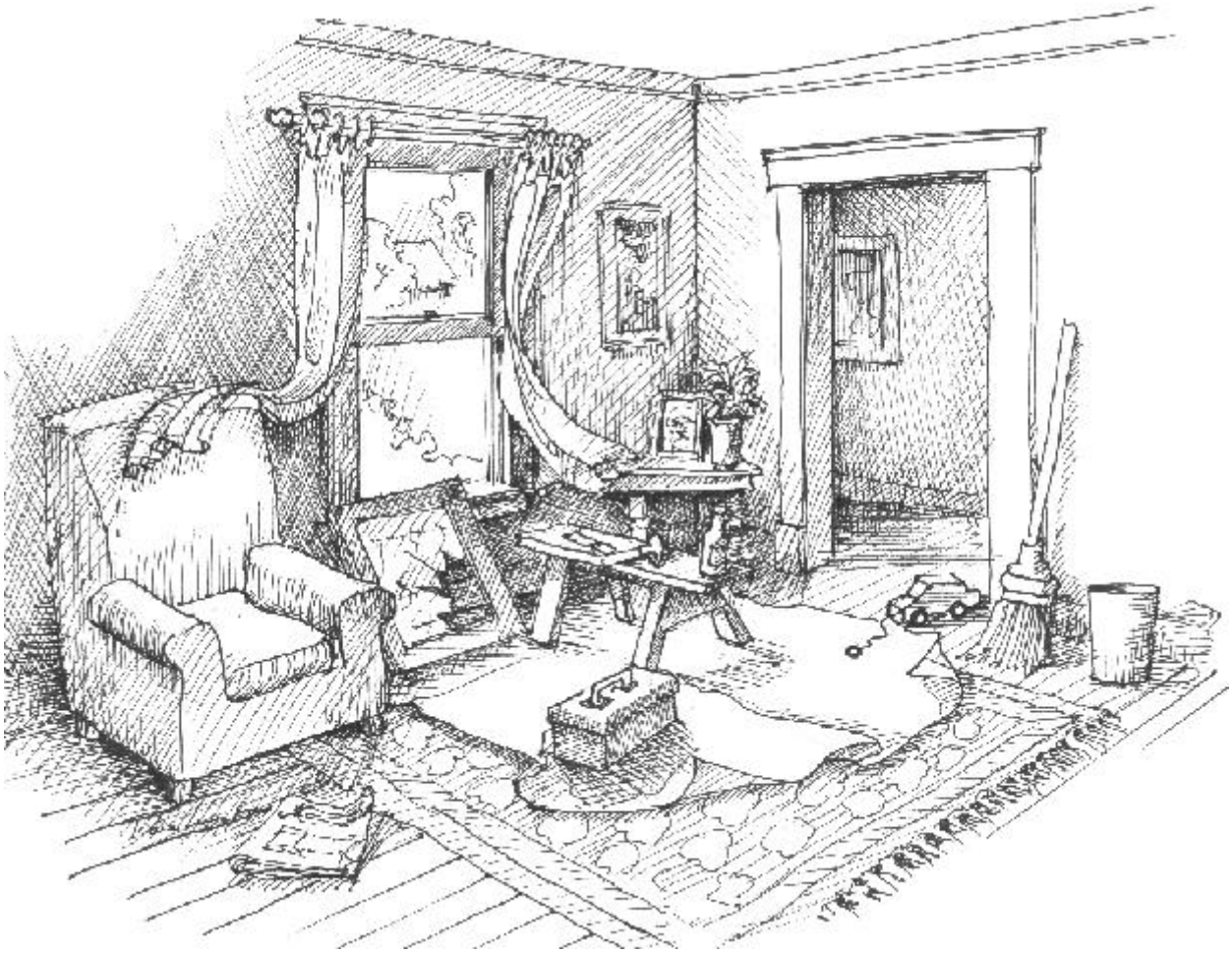
**Reduce the Spread of Dust and Debris**

## Illustration 3: Rework and Paint Interior Components

**Increase the Spread of Dust and Debris**

**Decrease the Spread of Dust and Debris**

## Illustration 1



## Illustration 2

## Illustration 3